

Replace the second paragraph on page 2, beginning at line 14, with:

Description of the Invention:

The search for clinically useful radiation sensitizers for treatment of cancers which fail to respond to radiation therapy has been actively pursued. This invention provides specific sequences which, while inducing radiation sensitivity on tumor cells, is non-toxic to normal tissue. As little as 10 pmol/ μ l of the sequences encapsulated in liposomes is effective when tumor cells are contacted with the compositions. It was found that the expression and enzymatic activity of Raf-1 protein are inhibited in cells exposed to *raf* antisense oligodeoxyribonucleotide (As-ODNs) directed against the translation initiation site of human c-*raf*-1 cDNA. In contrast, treatment of cells with an equimolar concentration of *raf* sense oligodeoxyribonucleotide (S-ODNs) had no effect on the expression and activity of Raf-1. Furthermore, it was observed radiosensitization of *raf* As-ODNs-treated SQ-20B cells. The dose modifying factor of As-ODNs treatment was ~1.4. This demonstrates that *raf* As-ODNs is a DNA sequences-specific radiosensitizer which may have potential for use in the radiation therapy of cancers. Hence, the method of the invention comprises administration of a radiosensitizing effective amount of at least one antisense nucleotide of no more than 40 bases containing the sequence 5' -GTGCTCCATTGATGC- 3' (SEQ ID NO: 1).

Replace the second paragraph on page 4, beginning at line 14, with:

Materials and methods

Oligodeoxyribonucleotides

The sense and antisense *raf* ODNs were designed against the translation initiation site of human c-*raf*-1 cDNA in accord with the teachings of Bonner (Bonner *et al.*, Nucleic Acids Res., 14:1009-1015, 1986), and have the following sequence: sense ODN (ATG_S *raf*), 5' - GCATCAAATGGAGCAC- 3' (SEQ ID NO: 3); antisense ODN (ATG-AS *raf*), 5' - GTGCTCCATTGATGC- 3' (SEQ ID NO: 1), only two of the bases, one at each end, are phosphorothiated. While antisense sequences of *raf* of up to 40 bases containing SEQ ID NO: 1 may be used, the larger sequences may be less effective. The fully phosphorothioated sequences may also be effective, but are more likely to cause toxic effects. That the sequences having only the end bases phosphorothioated are non-toxic to normal cells greatly enhances the value of such sequences for use in targeting malignant cells.